R.D. No. 800, F.Y. 2006-07 DELTA LEVEE SUBVENTIONS PROGRAM APPLICATION

SECTION I – GENERAL APPLICATION REQUIREMENTS

1. GENERAL

   A. The Board of Trustees of Reclamation District No. 800 has authorized the filing of an Application for participation in the Delta Levee Subventions Program for fiscal year 2006-07.

   B. Upon approval, the Board of Trustees of Reclamation District No. 800 will execute, sign, and enter into an Agreement with the Reclamation Board of the State of California for financial assistance to perform maintenance and rehabilitation work in accordance with the provisions and criteria set forth in the Agreement.

   C. The District will provide the Reclamation Board with a certified resolution authorizing the execution and signature of the above Agreement.

2. DISTRICT INFORMATION

   A. Reclamation District No. 800, Byron Tract, will continue to perform levee maintenance and rehabilitation work in accordance's with established standards, provisions, and criteria of the levee systems under their jurisdiction.

   B. The waterways surrounding the Byron Tract levee systems are Discovery Bay, Indian Slough, Old River, and Italian Slough.

   C.

Total Acreage Protected by Levees:	6,933 Acres
Agricultural Non-Project Levee Miles:	9.7 Miles
Ag-Interior Levee Miles	2.7 Miles
Urban Levee Miles	6.5 Miles
Total Levee Miles:	18.9 Miles

   D. The land use of the area protected by the District remains agricultural and urban. No immediate changes are anticipated.

   Acreage within Reclamation District No. 800, Byron Tract, is devoted to three economic uses: agriculture, small business, and residential, with approximately 5,783 acres of agricultural land and 1,150 acres of business and residential land.

   E. The 1990 U.S. Census Bureau listed the population of Byron Tract area as 6,336 persons. The area includes the population of Discovery Bay, the town of Byron, and urban areas in between, most of which are outside the boundaries of the Reclamation District.

   F. The District levies a special assessment each year to fund flood control, levee maintenance, rehabilitation, and environmental requirements related to those lands or rights-of-way within the District's jurisdiction. This special assessment is a direct levy allocated amongst the various property owners on a per acre and/or per lot basis.

   G. Reclamation District No. 800 did not apply for federal disaster assistance during the past fiscal year.

3. WORK DESCRIPTIONS

   A. A full size (24" x 36") base map has been developed for this Reclamation District using USGS Quadrangle Maps, Clifton Court Forebay and Woodward Island, with a scale of 1"=1000' and levee stationing. A reduced (11" x 17") base map is included with this application.

   Maintenance Work

   1. Description of Work - Refer to Section I, Subsection 6, Annual Routine Levee Maintenance.
   2. Drawings - A general engineering work plan is included with this application. Additional detailed engineering plans of proposed 2006-07 major work activities have not been authorized by the District. Site specific engineering plans and work, when authorized, will be coordinated with the appropriate agencies prior to construction.
   3. Budget Cost of Proposed Work - Refer to Section I, Subsection 5A.

B. Rehabilitation Work

1. Description of Work - Refer to Section I, Subsection 7.
2. Budget Cost of Proposed Work - Refer to Section I, Subsection 5B.

C. Description of Any Material Borrow Sites

1. The District's planned work does not include the use of any on-island borrow materials for this fiscal year.

4. LONG RANGE PLANS

A. The District's long range rehabilitation plans have concentrated on maintaining compliance with the Hazard Mitigation Plan (HMP) required by FEMA for future disaster assistance.

B. On August 29, 1997 FEMA determined that the District met the Requirements of the HMP. Currently, the levees of the District essentially meet or exceed the HMP specifications.

C. The District has adopted the following long range design standards and plans for the agricultural levee system under their jurisdiction:

Station 0+00 to Station 176+50

Crown Elevation	= 11.5 feet
Crown Width	= 20 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= -2.0 feet
Landside Berm Width	= 20 feet

Highway 4: Station 176+50 to Station 178+80 (No Work)

Station 178+80 to Station 198+00±

Crown Elevation	= 11.8 feet W.S.	
	= 11.5 feet L.S.	
Crown Width	= 16 feet minimum	
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)	
Waterside Bench Elevation	= 8.0 feet	
Waterside Bench Width	= 15 feet	
Landside Slope	= 3 horizontal to 1 vertical (3:1)	Sta 178+80 to Sta 184+00
(no Landside Berm)	= 1½ horizontal to 1 vertical (1½:1)	Sta 184+00 to Sta 194+00
	= 2 horizontal to 1 vertical (2:1)	Sta 194+80 to Sta 198+00±

Station 198+00 to Station 209+85

Los Vaqueros Water Transfer Facilities and Levee Reconstruction Project by Contra Costa Water District. The levee reconstruction project is designed to meet and/or exceed the District's long range design standards and plans.

Transition: Station 209+85 to Station 211+60

Station 211+60 to Station 217+00

Crown Elevation	= 11.9 feet W.S.
	= 11.5 feet L.S.
Crown Width	= 20 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 15 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)

Transition: Station 217+00 to Station 220+00

Station 220+00 to Station 239+00 (Existing Dredge Fill Site - Typical)

Crown Elevation	= 13.4 feet - Sta 220
	= 14.6 feet - Sta 239
Crown Width	= 20 feet minimum
Top of Riprap Elevation	= 9.0 feet
Base Flood Elevation	= 7.7 feet
Waterside Slope	= 1½ horizontal to 1 vertical (1½:1)
Landside Slope	= 4 horizontal to 1 vertical (4:1)

Transition: Station 239+00 to Station 242+00

Station 242+00 to Station 292+00

Crown Elevation	= 11.5 feet
Crown Width	= 20 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 15 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= -2.0 feet
Landside Berm Width	= 20 feet

Transition: Station 292+00 to Station 295+00

Station 295+00 to Station 315+00

Crown Elevation	= 11.5 feet
Crown Width	= 20 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= match existing slope range 4 : 1 to 5 ½ :1
Landside Berm Elevation	= -1.0 feet
Landside Berm Width	= 20 feet

** Waterside Bench Width varies
Station 298+00
Station 300+00

Transition: Station 315+00 to Station 320+00

Station 320+00 to Station 345+00

Crown Elevation	= 11.5 feet
Crown Width	= 20 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= -2.0 feet
Landside Berm Width	= 20 feet

** Waterside Bench Width varies
Station 323+00

Transition: Station 345+00 to Station 350+00

Station 350+00 to Station 395+00

Crown Elevation	= 11.5 feet
Crown Width	= 30 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= -2.0 feet
Landside Berm Width	= 20 feet

** Waterside Bench Width varies
Station 352+00
Station 367+00
Station 373+00 to Station 374+00
Station 378+00

** Landside Slope varies
Station 373+00 to Station 375+00

Transition: Station 395+00 to Station 400+00

Station 400+00 to Station 411+00

Crown Elevation	= 11.5 feet
Crown Width	= 24 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= -2.0 feet
Landside Berm Width	= 24 feet

** Waterside Bench Width varies
Station 404+00
Station 410+00

** Landside Slope varies
Station 404+00 to Station 405+00
Station 410+00 to Station 411+00

Transition: Station 411+00 to Station 415+00

Station 415+00 to Station 433+00

Crown Elevation	= 11.5 feet
Crown Width	= 24 feet minimum
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= -2.0 feet
Landside Berm Width	= 20 feet

** Landside Slope varies
Station 429+00 to Station 431+00
** Landside Berm Elevation varies
Station 425+00 to Station 433+00

Transition: Station 433+00 to Station 438+00

Station 438+00 to Station 467+00

Crown Elevation	= 12.5 feet
Crown Width	= 30 feet
Waterside Bench Slope	= 2 horizontal to 1 vertical (2:1)
Waterside Bench Elevation	= 8.0 feet
Waterside Bench Width	= 10 feet
Landside Slope	= 3 horizontal to 1 vertical (3:1)
Landside Berm Elevation	= 2.0 feet above original ground
Landside Berm Width	= 30 feet

** Landside Berm Elevation varies
Station 441+00 to Station 444+00
Station 464+00 to Station 467+00

The District plans to continue maintenance of its levee system to comply with HMP and State standards and requirements for maintenance and rehabilitation. The District will also conduct levee inspections and engineering surveys to keep abreast of subsidence, erosion, slipouts, and seepage along the levee section. In addition, periodic waterside levee slope inspections will be conducted at low tides to monitor existing conditions and riprap protection. Necessary repairs will be scheduled accordingly.

D. Environmental long range plans and goals consist of continued compliance with the requirements set forth under Delta Levee Subventions Program.

E. The District has determined that its long range levee maintenance and rehabilitation work and plans fall within the classes of projects which have been declared categorically exempt from the provisions of CEQA.

R.D. No. 800, F.Y. 2006-07 DELTA LEVEE SUBVENTIONS PROGRAM APPLICATION

5. BUDGET COST ESTIMATE FOR PROPOSED WORK

A. ANNUAL ROUTINE LEVEE MAINTENANCE	2006-07 APPLICATION
1. Levee Inspection	$35,000
2. Rodent Control & Filling Burrows	$12,500
3. Repair and Grading of Levee Patrol Roads, Access Roads & Ramps	$5,000
4. Repair of Levee Erosion & Subsidence A. Minor Slip outs & Erosion Repairs	$25,000
B. Subsidence of the Levee Section	$0
C. Hydro seeding - Repair of Landside	$1,500
5. Removal of Drift Deposits & Debris from Levee & Waterside Berm	$2,500
6. Levee Drainage Control A. Seepage & Boils	$25,000
B. Core Trench Installation	$0
7. Cleaning Drains & Toe Ditches Adjacent to Landside Levee Toe	$15,000
8. Levee Vegetation Control & Management	$35,000
9. Repair or Restoration of Waterside Slope Protection	$25,000
10. Flood Emergency Planning & Preparation	$20,000
11. Encroachments A. Removal of Encroachments & Restoration of Levee Section	$5,000
B. Repair, Replacement, or Modification to Benefit Flood Control	$5,000
12. Levee Profile & Cross Sections	$7,500
13. Other Levee & Underwater Surveys	$10,000
14. Engineering Services & Subventions A. Program Management	$12,500
B. Disaster Claim Management	$0
15. Other Maintenance	$5,000
16. Management and Accounting	$5,000
TOTAL ROUTINE LEVEE MAINTENANCE	$251,500

R.D. No. 800, F.Y. 2006-07 DELTA LEVEE SUBVENTIONS PROGRAM APPLICATION

	2006-07 APPLICATION
B. LEVEE REHABILITATION	
1. Hazard Mitigation Plan Levee Improvements	
A. Raising Levee to 1.0' Freeboard Plus 0.5' Tolerance	$0
B. Flattening Waterside Slopes to 1½:1 and/or Landside Slopes to 2:1	$0
C. Widening Levee Crown to 16'	$0
D. Construction of Landside Berms for Stability	$350,000
E. Construction of All-Weather Patrol Road, Levee Access Roads & Ramps	$0
TOTAL HMP LEVEE IMPROVEMENTS	$350,000
2. Bulletin 192-82 Levee Work	
A. Provide 1.5' Freeboard (Ag.) or 3.0' Freeboard (Urban) Plus 0.5' Tolerance	$0
B. Flattening Waterside Slopes to 2:1 and/or Landside Slopes to 3:1	$150,000
C. Re-widening of Levee Crown to 16'	$0
SUBTOTAL 2.A., B., & C.	$150,000
D. Reconstruction & Upgrading of All-Weather Patrol Roads	$250,000
E. Provide Turnouts, Access Roads & Ramps	$0
F. Relocation of Toe Ditches Resulting from 192-82 Work	$0
G. Replacement of Rock Protection Resulting from 192-82 Work	$0
TOTAL BULLETIN 192-82 LEVEE WORK	$400,000
3. Other Rehabilitation Work	
A. _____	$0
TOTAL OTHER REHABILITATION WORK	$0
TOTAL LEVEE REHABILITATION	$750,000

192-82

4 MP

R.D. No. 800, F.Y. 2006-07 DELTA LEVEE SUBVENTIONS PROGRAM APPLICATION

	2006-07 APPLICATION
C. ENVIRONMENTAL MITIGATION	
1. DF& G Permits, Subventions Program Services & Management	$2,500
2. Mitigation & Agreements	$1,500
3. Levee Enhancement & Vegetation Management	$2,000
TOTAL ENVIRONMENTAL MITIGATION	$6,000
D. FEMA/OTHER (If Claimed for Payment)	
TOTAL FEMA/OTHER	$0

TOTALS BY CATEGORY

A. ROUTINE LEVEE MAINTENANCE	$251,500
B. LEVEE REHABILITATION	$750,000
C. ENVIRONMENTAL MITIGATION	$6,000
D. FEMA/OTHER (If Claimed for Payment)	
1. *FEMA DISASTER Costs Submitted to DWR	$0
2. Disaster Costs Claimed for payment	$0
APPLICATION TOTAL	$1,007,500

6. ANNUAL ROUTINE LEVEE MAINTENANCE

A. General

1. The annual routine and regular maintenance of levees under the District's jurisdiction will consist of continuing with their regularly planned and scheduled maintenance activities.
2. The District's planned and budgeted activities and work items may require adjustment, elimination, increase, or decrease of certain line items in response to any or all of the following circumstances:
   - Unforeseen levee site conditions.
   - Changes in State and federal standards and regulations.
   - Changes in levee maintenance and rehabilitation requirements, and/or environmental programs.
   - District budget/cash flow constraints.
3. Maintenance activities are performed district wide on an as needed basis and are in accordance with the District's "Agreement for Annual Routine Levee Maintenance" as required by DFG Code Section 1601. The District will notify the Delta Levees Subventions Program Staff in advance of activities that will impact overall habitat values.

B. Maintenance Activities

1. Levee Inspection - Routine and joint levee inspections to check on maintenance activities, discover any changes in levee conditions, and report conditions that need repairs or further engineering investigations.
2. Rodent Control - Extermination of burrowing rodents and filling of burrows with compacted material, as needed. No filling of burrows in burrowing owl areas, as designated by DFG, shall take place during the period of March 15 through August 15, with the exception of the filling of beaver and muskrat dens near the waterline. Application of County permitted and restricted bait materials, or any other approved method of rodent eradication, in accordance with labeled instructions and regulations.
3. Shaping Levee Crown to Drain Freely - As needed the levee crown will be maintained to have a uniform shape, which will drain water equally throughout the surface without allowing pocketing or excessive runoff locations.
4. Repair and Grade Patrol/Access Roads and Ramps - Repair, grade, and shape levee crown, as needed. Levee patrol road areas may require placement of road surfacing for wet weather accessibility. Work will be performed in a manner that will keep dust to a minimum and prevent siltation into the adjacent waterways. The weight and speed of all vehicles using the patrol or levee access roads shall be restricted.
5. Repair Minor Slipouts, Erosion, or Subsidence of the Levee Section - Repair of active levee slipouts, erosion, rodent burrows, subsidence, or other site specific conditions that threaten the safety and stability of the levee, as determined by engineering investigations. Levee cavities, which require considerable slope rebuilding, will be backfilled with clean earthen materials and compacted. All repair sites will be covered with clean quarry stone riprap or other suitable revetment materials. All site repairs that are contracted out and exceed the lengths set forth in the District's DFG Annual Routine Maintenance Permit Agreement will be applied for under a separate "Site Specific" DFG 1601 Agreement.
6. Removal of Drift Deposits and Debris from Levee and Berm - Removal of flood deposited woody or herbaceous vegetation and associated debris to alleviate significantly reduced channel capacities, threatened levee safety, and liability to the District and the public.
7. Cleaning Drains and Toe Ditches Adjacent to the Landside Levee Toe - Cleaning of toe ditches, as needed, when they become ineffective and/or clogged, preventing proper levee seepage and drainage and impairing levee safety.

8. Vegetation Control - Continuation of annual weed/ vegetation/*Arundo donax* (bamboo) control on the levee crown and slopes in accordance with County, State, and federal requirements. Controlling vegetation on the levee slopes shall include applying permitted herbicides, and cutting or trimming vegetative growth such as weeds, brush, berry vines, and trees to the extent necessary to inspect and maintain the levee, subject to the following additional conditions:
   a. Herbicides shall not be applied between March 15 and July 1 of each year to protect breeding species.
   b. Soil sterilants may be applied to control *Arundo donax* (Giant reed / bamboo).
   c. Except during the period of March 15 through June 30, removal of branches, stems, and shoots of weeds, brush, berry vines, and shrubs is allowed.
9. Repairing or Restoring Waterside Slope Protection - Repair/restoration of existing waterside slope protection is an ongoing project along levee slopes that are subjected to considerable boat activity, wind and wave wash, and degradation by rodents. Repairs are determined by routine levee inspections and detailed engineering investigations. The repair/restoration may require slope rebuilding with clean embankment materials, compacted in place and covered with clean quarry stone riprap or other suitable revetment materials to maintain levee stability. All site repairs exceeding the maximum length for maintenance repairs will be applied for under a "Site Specific" DFG 1601 Agreement.
10. Flood Emergency Planning and Preparation - Activities shall be performed as needed.
11. Removing or Modifying Encroachments - Encroachments, which do not meet State standards, endanger levee safety, or interfere with levee maintenance and road access will be removed or modified. Existing encroachments (e.g., discharge pipes, siphons, slide/ flap/tide gates, weirs, drop structures, or other existing water control devices) are scheduled to be cleaned, repaired, raised, modified, and/or replaced as needed for operation and levee safety.
12. Levee Profiles, Cross Sections, and Other Surveys - Engineering and surveying services will be performed as needed.
13. Engineering Services and Delta Levee Subventions Program Management - Provide engineering services and program management as needed.
14. District representatives will participate in the Delta Levee Subventions Program management and accounting.
15. Other Maintenance - No other levee maintenance activities are currently planned. However, unforeseen levee site conditions and requirements may require District action and maintenance work.

7. LEVEE REHABILITATION PLANS

A. Rehabilitation work activities to be performed, as needed, for this fiscal year are as follows:
   1. Continuing construction of landside berms for levee stability and safety, as needed.
   2. Construction of all-weather patrol roads, levee access roads and ramps, as needed.
   3. Bulletin 192-82 levee work to provide 1.5' freeboard (Ag.) or 3.0' freeboard (Urban) plus 0.5 tolerance.

B. Plans and Specifications for Levee Reconstruction will be submitted to the Delta Levee Subventions Program.

R.D. No. 800, F.Y. 2006-07 DELTA LEVEE SUBVENTIONS PROGRAM APPLICATION

SECTION II ENVIRONMENTAL MITIGATION & ENHANCEMENT

1. WORK DESCRIPTIONS

   A. Habitat Assessment

      1. The District's levee habitat baseline assessment and vegetative mapping was completed by consulting biologists in August, 1990 and submitted to DFG and DWR. The District completed an updated Habitat Assessment (FY 2000 Habitat Assessment) prior to the October 31, 2000 deadline. The FY 2000 Habitat Assessment logs have been submitted to DFG and DWR.

   B. Authorities And Permit Compliance

      1. CEQA

         a. The District has determined that the routine maintenance work described in this application is categorically exempt under CEQA and from the requirements of preparing a Negative Declaration or an E.I.R., as said work falls under the Class I Categorical Exemption as defined in Section 15301 of the California Environmental Quality Act. The District plans to file "Notices of Exemption" with the County of San Joaquin for the work described herein.

      2. Regulatory

         a. The District will apply for and obtain any permits deemed necessary for work described in this application.

         b. The District anticipates that the majority of work described herein will be performed pursuant to one or more of the U.S. Department of Army, Corps of Engineers Nationwide Permits, when applicable.

         c. Where applicable, the District will apply for and obtain a "Site Specific" Streambed Alteration Agreement through the Department of Fish and Game in compliance with DFG Code Section 1601.

         d. Pursuant to DFG Code Section 1601, the District has signed the "Agreement for Annual Routine Levee Maintenance" Notification No. II-159-92.

2. NET HABITAT IMPROVEMENT MANDATES

   A. The District will comply with the Net Habitat Improvement Mandates required by AB 360. If habitat enhancement projects are required, the District will request participation in the DWR & DFG sponsored programmatic "habitat improvement" projects.

3. MITIGATION PLANS

   A. The District's work activities for fiscal year 2006-07 are planned to be carried out in a manner consistent with the signed DFG Agreement No. II-159-92 and the conditions set forth therein.

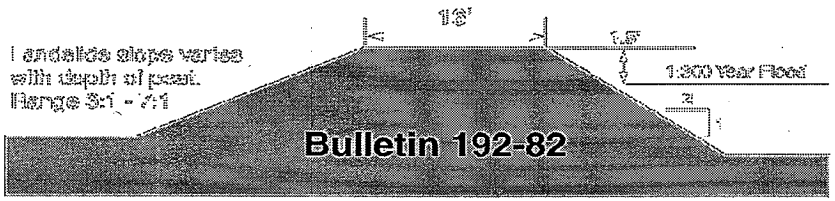
4. LONG RANGE MITIGATION PLANS

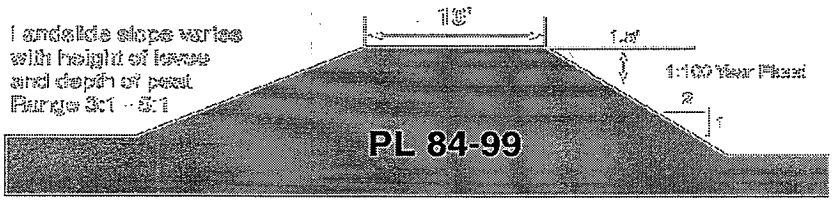
   A. Continued work with DFG and DWR in a manner consistent with signed agreements and conditions set forth under Delta Levee Subventions Program.

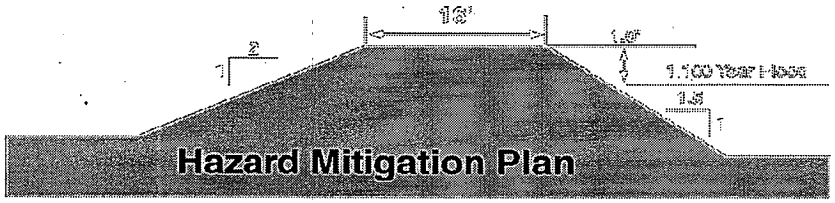
   B. Continue efforts and work with DFG and DWR to include and further develop District owned Indian Slough berms into additional SRA enhancement mitigation project. Recommend the berms be re-evaluated with District and Consultants as a viable project.

Delta Levee Standards

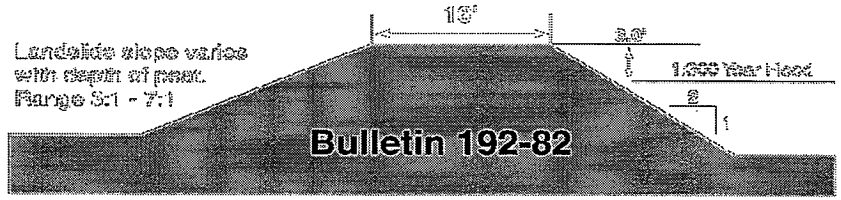
Agricultural

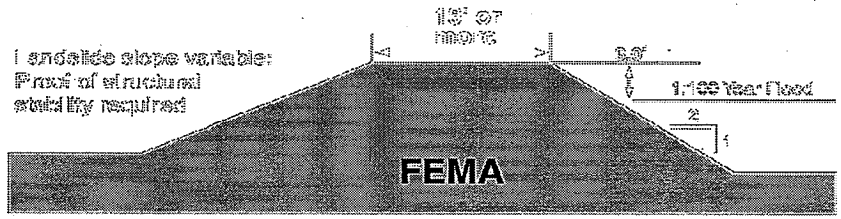


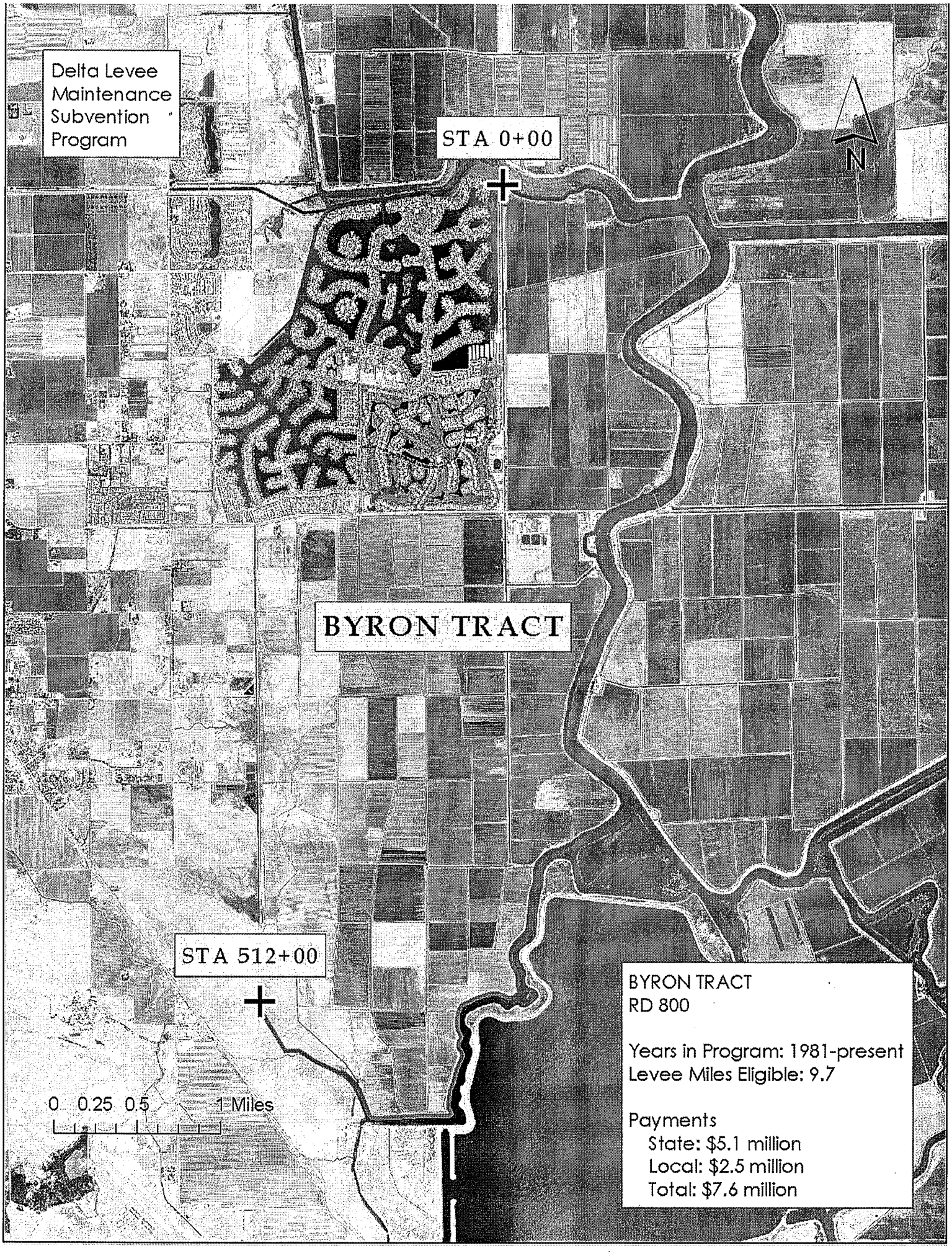




Urban






Delta Levee Maintenance Subvention Program
STA 0+00
N
BYRON TRACT
STA 512+00
0 0.25 0.5 1 Miles
BYRON TRACT
RD 800
Years in Program: 1981-present
Levee Miles Eligible: 9.7
Payments
State: $5.1 million
Local: $2.5 million
Total: $7.6 million